

REMARKS

Claims 1-5 are currently pending in the present application. No claims have been amended in the present response. Applicants respectfully request reconsideration on the merits of the pending claims.

Request for Interview

Applicants have attempted to schedule an interview with the Examiner prior to the filing of the present response, but were unable to do so due to the Examiner's schedule. Applicants respectfully request that the Examiner contact the undersigned to schedule an interview in the present application, as Applicants believe that an interview will greatly advance the prosecution of the present application.

Rejections under 35 U.S.C. §103 – Obviousness

Claims 1-5 remain rejected under 35 U.S.C. § 103 as being unpatentable over USP 4,929,564 to Kainosho et al. (hereinafter "Kainosho") in view of US 2003/0077870 to Yoon et al. (hereinafter "Yoon").

The Examiner has maintained the outstanding rejections as in the previous Office Action. Notably, the Examiner did not address Applicants' argument that neither paragraph [0016] nor any other paragraph in the Yoon disclosure teaches improved electrical properties by the addition of an epitaxial layer. In support of the outstanding rejection, the Examiner states at page 5, paragraph 5 that

"the features upon which applicant relies (i.e., the set temperature changes depending on the resistivity of the substrate at a room temperature in order to adjust the actual substrate temperature to the predetermined temperature during the epitaxial layer growth, Page 3, lines 6-8 of argument) are not recited in the rejected claim(s)."

Applicants respectfully submit that (1) the Examiner has mischaracterized the Yoon disclosure and what it teaches to those of ordinary skill in the art, and (2) the Examiner has not considered all of the limitations of the presently claimed invention. In accordance with MPEP

2143.03, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Specifically, Applicants strenuously disagree with the Examiner's comments that the above feature is not recited in the present claims. Applicants believe that this feature is recited in the present claims.

Claim 1 expressly recites:

A vapor phase growth method for growing an epitaxial layer on a semiconductor substrate, comprising:

previously measuring a resistivity of the semiconductor substrate at a room temperature;

controlling a set temperature of the substrate depending on the resistivity at the room temperature such that a surface temperature of the substrate is a desired temperature regardless of the resistivity of the semiconductor substrate; and

growing the epitaxial layer. (emphasis added)

Therefore, contrary to the Examiner's allegation, the present claim clearly recites the disputed feature. Thus, Applicants respectfully request due consideration of the claimed feature.

In the present invention, a resistivity of the semiconductor substrate at a room temperature is previously measured. Further, a set temperature of the substrate is controlled depending on the resistivity at the room temperature, such that a surface temperature of the substrate is a desired temperature, regardless of the resistivity of the semiconductor substrate, to grow the epitaxial layer.

However, in Kainosho, the variation in the resistivity of the substrate is suppressed by the heat treatment. Kainosho fails to disclose the above mentioned features of the present invention.

Yoon discloses a method of reducing parasitic capacitance of a device on an HBT epilayer using selective wet etching, which has nothing to do with the vapor phase growth method for growing an epitaxial layer, as in the present invention.

As discussed above, the problems solved by the present invention and the process of the present invention are different from Kainosho and Yoon. Therefore, Applicants respectfully submit that the presently claimed invention is non-obvious, in light of the cited prior art. Reconsideration and withdrawal of the outstanding rejection are respectfully requested.

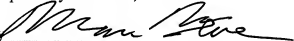
In view of the foregoing, Applicants believe the pending application is in condition for allowance. A Notice of Allowance is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Monique T. Cole, Reg. No. 60,154 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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